

REMARKS

We acknowledge the Examiner's indication that claims 2, 8, 9, 13, 19 and 20 would be allowable if amended to be in independent format and to include all of the limitations recited in any base and intervening claims. Applicants believe however that they are entitled to greater protection than that which is provided by these claims.

We have amended the title to more clearly indicate that which applicants regard as their invention.

Prior Art Rejections

Nakajo (U.S. Patent No. 6,781,937)

The Examiner rejected claims 1, 3-5, 11, 12 and 14-16 were rejected as being anticipated by Nakajo (U.S. Patent No. 6,781,937).

Independent claims 1, 11 and 12

We submit that Nakajo does not disclose a data recording device for recording data on an optical disc by irradiating a laser pulse on the optical disc while controlling rotation of the optical disc at a constant angular velocity, the device comprising a laser conditioning unit that changes a peak value of the laser pulse in accordance with a value relating to a linear velocity of an optical disc at a position at which the laser pulse is irradiated, as recited in independent claim 1.

We further submit that Nakajo does not disclose a data recording device for recording data on an optical disc irradiating a laser pulse on the optical disc while controlling rotation of the optical disc at a constant angular velocity, the device comprising a control unit for sequence controlling at least one of the pulse timing and the pulse width of the laser pulse in accordance with a read specifying value set in accordance with a linear velocity of the optical disc at a position at which the laser pulse is irradiated, as recited in independent claim 11.

Finally, we submit that Nakano does not disclose a data recording control device for controlling recording of data on an optical disc while controlling rotation of the optical disc at a constant angular velocity, wherein the data is recorded by irradiating a laser pulse on the optical disc ... the device comprising a ... a strategy specifying circuit ...for specifying a peak value of the laser pulse in accordance with a detected value; and a laser drive circuit ... for altering the peak value of the laser pulse to the specified value, as recited in independent claim 12..

Rather, Nakajo discloses controlling a waveform of a laser pulse in accordance with a value of a constantly controlled linear velocity when recording data in accordance with the CLV method that rotates a disk at a constant linear velocity (see column 8, line 66 to column, line 1, column 9, lines 55-63, and column 11, lines 48-63). That is, unlike Nakano's device, the linear velocity of the inventions recited in claims 1, 11 and 12 are not constant. Accordingly, we submit that claims 1, 11, and 12 distinguish over Nakajo.

We submit that because claims 3-5 depend from independent claims 1 and claims 14-16 depend from claim 12, these dependent claims are patentable for at least the same reasons that claims 1 and 12 are patentable.

Takada et al. (U.S. Patent No. 5,848,043)

Claims 1, 3, 6, 7 and 10 were rejected as being anticipated by Takada et al. (U.S. Patent No. 5,848,043 hereinafter "Takada").

Independent claims 1, 6, and 10

We submit that Takada does not disclose a data recording device for recording data on an optical disc ... comprising a laser conditioning varying unit that changes a peak value of the laser pulse in accordance with a value relating to a linear velocity of an optical disc at a position at which the laser pulse is irradiated, as recited in independent claim 1.

We also submit that Takada does not disclose a data recording device for recording data on an optical disc ... comprising a laser conditioning varying unit for generating a clock using a value relating to a linear velocity of the optical disc at a position at which the laser pulse is

irradiated and for altering at least one of a pulse timing and a pulse width of the laser pulse based on the clock, as recited in independent claim 6.

Finally, we submit that Tanaka does not disclose a data recording device ... comprising a laser condition varying unit for altering a peak value of a laser pulse in accordance with a value relating to a linear velocity of an optical disc at a position at which the laser pulse is irradiated and generating a clock using the value relating to the linear velocity of the optical disc at a position at which the laser pulse is irradiated and altering at least one of a pulse timing and a pulse width of the laser pulse based on the clock, as recited in independent claim 10.

Instead, Takada discloses controlling a pulse width and pulse timing of a laser pulse at the inner and the outer periphery of a disk when recording data at a constant angular velocity (CAV) (see column 13, line 65 to column 14, line 13).

We submit that because claims 3 and 7 depend from independent claims 1 and 6, respectively, these dependent claims are patentable for at least the same reasons that claims 1 and 6 are patentable.

Takada et al. (U.S. Patent No. 5,848,043) in view of Nakajo (U.S. Patent No. 6,504,806)

The Examiner rejected claims 12, 14, 17, 18 and 21 as being unpatentable over Takada in view of Nakajo (U.S. Patent No. 6,504,806).

Independent claims 12, 17, and 21

Neither Takada nor Nakajo '806 discloses a strategy specifying circuit for specifying a peak value of a laser pulse in accordance with a detected value, as recited in independent claim 12. Neither Tanaka nor Nakajo discloses a clock generating unit for generating a clock using a value relating to a linear velocity of the optical disc at the position at which the laser pulse is irradiated in accordance with detected value, and a laser drive circuit for altering the at least one of a pulse width and a pulse timing of the laser pulse to the specified at least one of the pulse timing and pulse width based on the clock, as recited in independent claim 17.

Finally, neither Tanaka nor Nakajo discloses a clock generating unit for generating a clock using a value relating to a linear velocity of the optical disc that changes in accordance with a position at which the laser pulse is irradiated in accordance with the detected value; a strategy specifying circuit for specifying a peak value of the laser pulse and at least one of a pulse width and a pulse timing of the laser pulse in accordance with the detected value; and a laser drive circuit for altering at least one of the pulse width and the pulse timing of the laser pulse to the specified at least one of the pulse timing and pulse width based on the clock, as recited in independent claim 21.


As discussed above, Takada discloses controlling a pulse width and pulse timing of a laser pulse at the inner and the outer periphery of a disk when recording data at a constant angular velocity. On the other hand, Nakajo '806 discloses controlling a waveform of a laser pulse in accordance with a value of a constantly controlled linear velocity when recording data in accordance with the CLV method that rotates a disk at a constant linear velocity.

We submit that at least for these reasons that claims 12, 17 and 21 are patentable over Takada in view of Nakajo '806. We further submit that because claims 14 and 18 depend from independent claims 12 and 17, respectively, these dependent claims are patentable for at least the same reasons that claims 12 and 17 are patentable.

Please apply any other charges or credits to deposit account 06-1050.

Respectfully submitted,

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Frank R. Occhiuti
Reg. No. 35,306

Fish & Richardson P.C.
225 Franklin Street
Boston, MA 02110-2804
Telephone: (617) 542-5070
Facsimile: (617) 542-8906